Air Deposition Strategy

Air deposition reductions are closely tied to the requirements placed on Maryland under the EPA's *Clean Air Act*. While the act is focused on reducing emissions related to the national ambient air quality standards, there are nitrogen deposition co-benefits associated with the implementation of the *Clean Air Act* — nitrogen oxide emission reductions have an immediate impact on reducing the nitrogen loads into the Bay.

Maryland has implemented numerous regulatory programs to reduce airborne nitrogen oxide emissions. These programs (some State and some Federal) cover all applicable nitrogen oxide emission sources (point, areas, mobile, and non-road). Specifically, utility emission control regulations, Federal motor vehicle emission reduction programs, and regional nitrogen oxide reduction measures have and will provide Maryland with major nitrogen oxide reduction benefits. These programs are directly tied to the implementation of the *Clean Air Act*.

Additionally, Maryland has taken an aggressive non-regulatory stance in an effort to further reduce in-state nitrogen oxide emissions. Voluntary programs, like the Ozone Action Day Program, have been widely viewed as successful emission reduction programs that help both the Chesapeake Bay and air quality overall.

This Air Deposition Strategy assumes full implementation of existing *Clean Air Act* policies that could equal a 15% nitrogen reduction to the Bay from the air.

Implementation Schedule

2005: Maryland will continue to push EPA to focus on reductions in transported emissions. Begin development of air quality plans for the new 8-hour ozone and fine particle air quality standards.

2006: Continue development of air quality plans for 8-hour ozone and fine particle air quality standards. This will include the development of any new emission control regulations or emission reduction strategies.

2007: Maryland will submit an air quality plan for the 8-hour ozone standard to the EPA.

2008: Maryland will submit an air quality plan for the fine particle standard to the EPA.

2009/2010: Continue to implement the Emission Control Strategies under the *Clean Air Act* (the 8-Hour Ozone and Fine Particle Air Quality Plans) and the new *Federal Clean Air Interstate Rule*.

Current Programs Implementing the Strategy

- *Clean Air Act* requirements under the 1-hour ozone standard, including our State Implementation Plans for the 1-hour ozone standard.

- Federal Emission Control Programs, such as the Federal Motor Vehicle Emission Control Program and the Nitrogen Oxide State Implementation Plan (which targets power plants).

- Maryland has developed more than 50 specific emission reduction regulations in the past 15-years.

Implementation Barriers and Possible Solutions

MDE's focus with respect to emission reduction strategies hinges on ensuring that air pollution transport is being handled on regional and Federal levels. While Maryland has been a national leader in implementing programs to reduce its emissions, the State needs focused regional and national efforts to attain the national standards. Maryland has been aggressive in pushing EPA to seek enhanced transport reductions. In addition, MDE has been actively working with regional organizations to seek additional emission reductions from upwind states. The State is pursuing transport reductions while ensuring that local control programs remain strong and innovative. Without the continued support of the EPA and neighboring states, it will be

Car emissions are a major source of air deposition in the Chesapeake Bay watershed.

difficult to achieve the air and water quality standards.

State Initiatives to Address the Implementation Gaps

2-Year Action Plan

These initiatives are organized by the agency that will be responsible for implementing them. Many of these initiatives, however, will require the cooperation and coordination of several State agencies, local governments, and other stakeholders.

MDE will implement the following actions:

- Continue implementation of 1-hour ozone control programs.
- Continue to push for regional nitrogen oxide control programs to reduce air pollution transport. Success in this arena will lead to substantial nitrogen deposition benefits for the Bay.
- Continue to work independently and also with the Ozone Transport Commission on the development and implementation of an aggressive power plant control programs that will require nitrogen oxide reductions faster and deeper than Federal requirements.

5-Year Action Plan

These initiatives are organized by the agency that will be responsible for implementing them. Many of these initiatives, however, will require the cooperation and coordination of several State agencies, local governments, and other stakeholders.

MDE will implement the following actions:

- Develop and implement emission controls to meet the 8-hour ozone and fine particle national ambient air quality standards.
- Implement the nitrogen oxide control program via the *Clean Air Act* (for 8-hour ozone and fine particle national

Factory emissions are another major source of air deposition in the Bay watershed.

ambient air quality standards) and the new *Federal Clean Air Interstate Rule*.

- Fully implement several Federal Motor Vehicle Emission Control Programs (e.g., Tier II and heavy duty diesel standards).

Long-Term Policy Plan

These are long-term initiatives for education, policy, and restoration needs to meet Bay water quality standards. These initiatives are organized by the agency that will be responsible for implementing them. Many of these initiatives, however, will require the cooperation and coordination of several State agencies, local governments, and other stakeholders.

MDE will implement the following actions:

- Continue implementing any formal control program and maintenance measures, such as the 8-hour ozone and fine particle *Clean Air Act* requirements.

Stakeholder Roles in Implementing the Strategy

Private Landowners

- Support the Ozone Action Days Program.

Business and Industry

- Comply with necessary Federal and State regulations in a timely manner.

- Support MDE's push for regional controls to ensure reductions in pollution transport.

State Government

- MDE will develop State Implementation Plans for fine particle and ozone, which will reduce nitrogen deposition through the direct reduction of nitrogen oxide. These plans are due in 2007/2008 and will be fully implemented by 2009/2010.

- MDE will continue to push for regional reductions to control transported pollution.

- MDE will also implement any Federal rules, such as the *Federal Clean Air Interstate Rule* and *Clean Air Mercury Rule*, to reduce emissions from the power plant sector.

Federal Government

- Continue to work with MDE and regional organizations to enhance the control of transported pollution.

- Work with MDE on the implementation of the *Federal Clean Air Interstate Rule* and *Clean Air Mercury Rule*.

Local Governments

- Work with MDE to develop local emission control programs needed to meet the air quality goals.

- Support MDE's push for regional controls to ensure the reduction in pollution transport.